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Abstract Title: DIFFERENTIATING CHARACTERISTICS OF ATHEROSCLEROTIC INDUCED VERTEBROBASILAR INSUFFICIENCY AND VERTEBRAL ARTERY DISSECTION: A SYSTEMATIC REVIEW

Abstract (300 words)
Background and Aims: Atherosclerotic induced vertebrobasilar insufficiency (VBI) and vertebral artery dissection (VAD) are two conditions under the collective term of cervical artery dysfunction (CAD). Clinical guidelines advise manual therapists to maintain a high level of suspicion for CAD masquerading as a neuromusculoskeletal injury. However, these two conditions may require different actions from a therapist, therefore further knowledge to aid differential diagnosis would be valuable. Therefore, the aim of this review is to identify differentiating clinical characteristics for reported cases of atherosclerotic induced VBI and VAD.
Methods: A systematic search of nine databases (Ageline, AMED, CINAHLplus, EMBASE, MEDLINE, PEDro, PsychINFO, SPORTdiscus, Cochrane Library) was performed in November 2016 and identified 4456 articles. Following screening, 32 articles remained, identifying 1734 cases; 1432 (83%) presenting with VAD and 302 (17%) with VBI.
Results: Mean age of patients with VAD was 45 yrs compared to 73 yrs in patients with VBI. Headache and neck pain emerged as key differentiating symptoms: 65% of patients with VAD reported headache compared to 1% of patients with VBI. 64% of patients with VAD reported neck pain compared to 0% of patients with VBI. Dizziness/vertigo was reported in 33% of patients with VAD compared to 9% of patients with VBI.
Conclusions: The differing mean age adds support to the proposed differing age ranges affected by these two pathologies. The presence of headache and neck pain with VAD are in keeping with previous reports but aid clarity regarding differentiation between CAD conditions. However, application of this finding to clinical practice is likely to be complicated due to the likelihood of co-existing neuromusculoskeletal pathology presenting with neck pain and/or headache. The lower rates of reported dizziness/vertigo in both patient groups suggest that absence of this symptom should not be indicative of no presence of CAD.